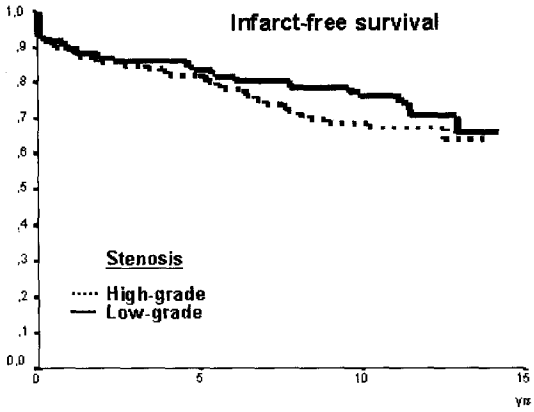
grade stenosis 24 hours after successful fibrinolysis are at increased risk for death and reinfarction, and -with it- the potential benefit of a routine invasive strategy.



2:30 p.m.

822-3

Six-Month Mortality Rates Are Lower in Patients With an Acute Coronary Syndrome Treated With the Combination of Clopidogrel and a Statin Than in Patients Treated With Either Therapy Alone: An Analysis From the Global Registry of Acute Coronary Events

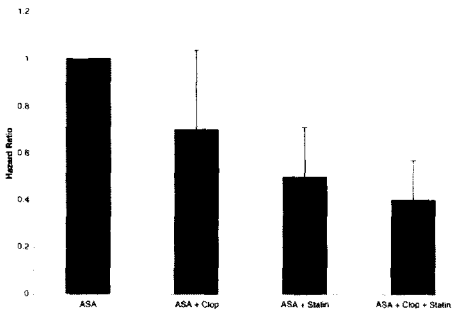
Michael J. Lim, Frederick A. Spencer, Joel M. Gore, Omar H. Dabbous, Eva M. Kline-Rogers, Robert J. Goldberg, Donna DiBenedetto, Kim A. Eagle, Rajendra H. Mehta, on behalf of the GRACE Investigators, University of Michigan Health System, Ann Arbor, MI, University of Massachusetts Medical School, Worcester, MA

Background: The use of clopidogrel as well as statins has been shown to prevent recurrent adverse events in patients with acute coronary syndromes. However, recent in-vitro data suggest that the antiplatelet effects of clopidogrel may be mitigated by the concomitant use of a statin. We hypothesized that, if these drug interactions are clinically relevant, then the mortality reduction in patients receiving both of these agents would not be as great.

Methods: Utilizing the GRACE database, 6-month mortality and stroke were evaluated in 4 groups based on discharge treatments: Group I=aspirin (ASA) alone (n=2956), Group II=ASA+clopidogrel (n=670), Group III=ASA+statin (n=2557), and Group IV= ASA+statin+clopidogrel (n=1229).

Results: Overall mortality for the patients treated with aspirin was 7.2%, compared to 4.8% in Group II, 4.2% in Group III, and 3.0% in Group IV. There was a trend toward reduced stroke rate with combination therapy(1.3%, 1.7%, 1.2% and 0.7%, respectively). Utilizing a Cox regression model, hazard ratios and 95% confidence limits were computed for mortality at 6 months compared to treatment with aspirin alone (Fig).

Conclusions: These data suggest that, if there is a pharmacologic interaction between statin medications and clopidogrel, it is not apparent in 6-month mortality rates within the GRACE registry patients. In fact, there is a trend toward reduced mortality in those patients receiving aspirin+clopidogrel+statin compared to the other groups, suggesting a synergistic effect.



2:45 p.m.

822-4

Which Features of the Metabolic Syndrome Predict Clinical Outcomes (Death/Myocardial Infarction) in Patients With Angiographic Coronary Artery Disease?

Heath U. Jones, Joseph B. Muhlestein, John F. Carlquist, Benjamin D. Horne, Robert R. Pearson, Chloe A. Allen Maycock, Sandra P. Reyna, Tami L. Bair, Donald L. Lappé, Dale G. Renlund, Jeffrey L. Anderson, LDS Hospital, Salt Lake City, UT, University of Utah, Salt Lake City, UT

Background: The metabolic syndrome (MS), a clustering of dyslipidemia, dysglycemia, hypertension, and obesity, is regarded as an important risk factor for coronary artery disease (CAD) onset. The Adult Treatment Panel III recently provided a uniform definition of MS, but the predictive value (PV) of MS and its components for cardiovascular events once CAD has developed is unknown.

Methods: We prospectively tested the PV of MS and its components for incident death or myocardial infarction (D/MI) in patients (pts) with advanced CAD (≥70% stenosis). Acute MI at presentation was excluded. Components of the MS assessed at baseline included: 1) fasting glucose (FG) ≥110 mg/dL, 2) triglycerides (TG) ≥150 mg/dL, 3) high density lipoprotein (HDL) <40 mg/dL in men or <50 mg/dL in women), and 4) systolic blood pressure (SBP) ≥130 and/or diastolic BP ≥85 mmHg. MS was defined as ≥3 features. Waist measurement was not available, but body mass index (BMI ≥27 kg/m2) was explored as a surrogate measure. Analysis used multivariable Cox regression.

Results: The study cohort was 2,037 pts; 76% were male; average age was 65±11 y; 17% had a prior MI and 8% had heart failure (HF). MS was present in 51% (high FG: 45%, high TG: 53%, low HDL: 74%, high S/DBP: 77%). High BMI was present in 57%. In contrast to our prior finding that MS predicts CAD diagnosis, MS failed to predict D/MI in pts with existing CAD (p=0.81). Only high FG , a MS component, predicted D/MI (hazard ratio [HR] 1.41, 95% CI 1.14-1.74, p=0.002). (Clinical diagnosis of diabetes was even better than FG: HR 1.92, p<0.001). High TG, low HDL, and high S/DBP were not predictors (p=0.2-0.3). Likewise, high BMI did not predict risk. In multivariable modeling, D/MI was predicted by age (p<0.001), high FG (HR=1.38, CI 1.12-1.71, p=0.003), and high S/DBP (HR=0.72, CI 0.57-0.91, p=0.006). (The PV of S/DBP disappeared when pts with HF and prior MI were excluded).

Conclusion: Once CAD is established, high FG alone, but not MS, distinguishes subsequent prognosis (D/MI). This extends previous observations of reduced PV for several established risk factors (e.g., gender, hyperlipidemia, smoking, hypertension, but not diabetes) when applied to secondary as compared to primary risk assessment.

3:00 p.m.

822-5

Clinical and Angiographic Predictors of Cardiac Events in Patients With Non-ST Elevation Acute Coronary Syndromes Undergoing Percutaneous Coronary Intervention in the Current Era: Insights From the PRESTO Trial

Heidar Arjomand, James T. Willerson, David R. Holmes, Bassam Roukoz, Satish Surabhi, Ismail Dairywala, Chowdhury Ahsan, Marc Cohen, Zoltan G. Turi, Sheldon Goldberg, Drexel University College of Medicine, Philadelphia, PA, Mayo Clinic, Rochester, MN

Background: Patients with non-ST elevation acute coronary syndromes (NSTE-ACS) represent a high-risk group of patients. An early invasive strategy with percutaneous coronary intervention (PCI) is recommended in these patients. However, there is limited data on predictors of outcome in ACS patients undergoing PCI in the current era.

Methods: We identified clinical and angiographic predictors of outcome in 5,503 consecutive patients with NSTE-ACS who underwent PCI between April 1999 and July 2000 as a part of the Prevention of Restenosis with Tranilast and its Outcomes (PRESTO) trial.

Results: At 9-month follow-up, 18.4% of patients experienced a cardiac event (death, MI, or TVR). Multivariate analysis identified several clinical and angiographic predictors of a cardiac event (Table).

Conclusions: In patients with ACS undergoing PCI, certain clinical characteristics and angiographic features predict a high risk of adverse outcome.

Table 1. Clinical and Angiographic Predictors of Cardiac Events at 9 months.

	Odds ratio (95% CI)	p-value
Clinical Variables:		
- Diabetes	1.34 (1.15-1.56)	< 0.01
- Prior CABG	1.35 (1.12-1.62)	< 0.01
- Prior PCI	1.39 (1.15-1.68)	< 0.01
Angiographic Variables:		
- Bifurcation lesion	1.33 (1.06-1.67)	0.01
- Multivessel CAD	1.51 (1.06-2.15)	0.02
- Restenotic lesion	1.58 (1.27-1.98)	< 0.01
- Ostial lesion	1.74 (1.38-2.19)	< 0.01